

Geographical Distribution of *Isoëtes butleri* in the Southeastern United States

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According to Pfeiffer (1922), *Isoëtes butleri* Engelm. occurs in Tennessee, Missouri, eastern Kansas and south into Arkansas and Oklahoma. In Tennessee, *I. butleri* is restricted to cedar (limestone) glades of the Central Basin, where the soil is water-logged during winter and early spring but may be extremely dry during late spring, summer, and autumn. The University of Tennessee and Vanderbilt herbaria have specimens of *I. butleri* from Bedford, Davidson, Maury, Rutherford, Williamson, and Wilson Counties. In addition, we have found the species in Marshall County on 7 May 1977, along State Road 99, 6.5 miles west of U.S. highway 31A (J. & C. Baskin 1895, VDB). All of the above collections were from cedar glades.

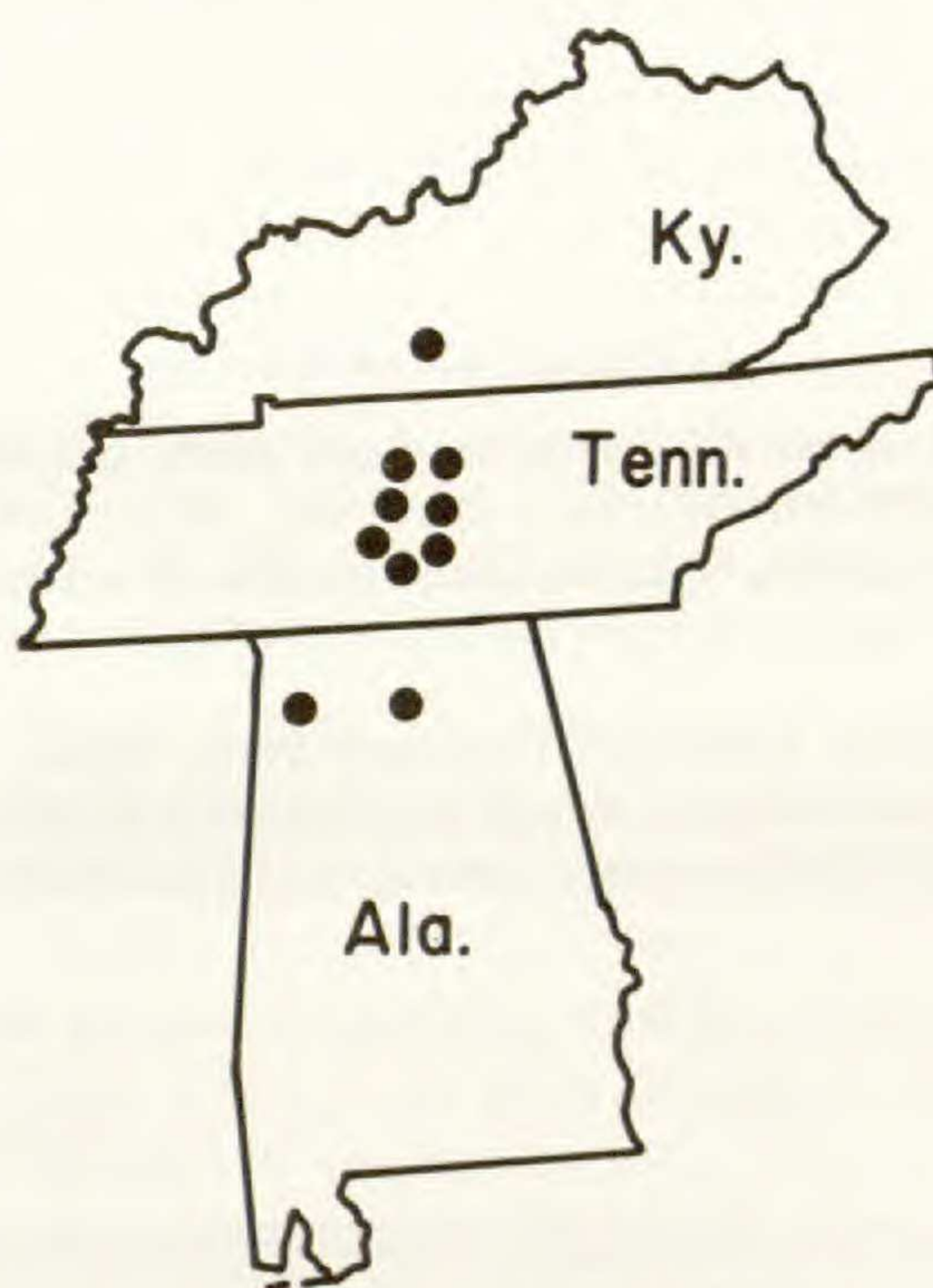


FIG. 1. A county dot distribution map of *Isoëtes butleri* in the southeastern United States.

Cedar glades also occur in northern Alabama and in Kentucky, but there has been only one previous report of *I. butleri* in Alabama, and the species has not been reported from Kentucky. The only report of *I. butleri* from Alabama is by Kral (1973), who collected the species on a limestone glade near Isbel in Franklin County. We have collected the species on a second cedar glade in Franklin County on 27 May 1977, east of Russellville along County Road 83, 0.6 miles north of State Road 24 (J. & C. Baskin 1324, VDB), and on a cedar glade in Morgan County on 6 Apr 1972, near McKendry, along Cedar Plains Church Road, 0.2 miles north of County Road 55 (J. & C. Baskin 1193, VDB). In Ken-

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tucky we have collected *I. butleri* on a cedar glade in Warren County on 12 Apr 1973, east of U.S. Road 31W, 0.2 miles north of the Warren-Simpson County line (*J. & C. Baskin 1648*, MIL, TENN, VDB). The presently known geographical distribution of *I. butleri* in southeastern United States is shown in *Fig. 1*.

In the southeastern United States, *I. butleri* has been collected only from calcareous glades. In a recent study of *Isoetes* specimens from Arkansas, Missouri and Illinois, Taylor, Mohlenbrock, and Murphy (1975) concluded that *I. butleri* "... shows a definite affinity for drier upland sites, but more often calcareous, rather than sandstone ones." In his paper entitled "Some Features of the Flora of the Ozark Region in Missouri," Steyermark (1934) lists *I. butleri* as a typical calciphile. However, in his "Flora of Missouri," Steyermark (1963, p. 11) says that the species "... occurs both on sandstone and chert as well as on limestone glades." While discussing the occurrence of *I. butleri* on sandstone with the senior author, Dr. W. Carl Taylor said that some of the sandstones in the Ozark Region of Missouri are cemented together with calcareous material and that *I. butleri* growing on them may, in fact, be growing on a calcareous substrate.

We thank Dr. W. Carl Taylor of the Milwaukee Public Museum for verifying the identification of our specimens from Warren County, Kentucky.

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